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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,830	02/23/2000	Donald D. Holbrook	W-3875	3393

7590

03/06/2002

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EXAMINER

HOEY, BETSEY MORRISON

ART UNIT

PAPER NUMBER

1724

12

DATE MAILED: 03/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-12

Office Action Summary

Application No.
09/511,830

Applicant(s)
Holbrook

Examiner
Betsey M. Hoey

Art Unit
1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Feb 11, 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-11, and 13-15 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, and 13-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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1. It appears that the previous Office Action had an error in paragraph 2, which was intended to list claims 1-4, 6-10 and 13-15 as being anticipated by Richey et al. The Office Action also had an error in paragraph 6, which was intended to reject claim 11, not 10, under 35 USC 103.

Because of these errors, the finality of that action is withdrawn.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6-10 and 13-15 are rejected under 35 U.S.C. 102(a) as being anticipated by Richey et al. in "Improved Ozone Quenching With Calcium Thiosulfate". Richey et al. teach a method for treating water comprising disinfecting the water with ozone in a treatment system, wherein the system includes an ozone quenching system. In the ozone quenching system, an ozone quenching chemical is added directly to the water as it passes through the treatment system, in an amount to reduce the dissolved ozone concentration to non-detectable levels without reacting with chlorine added downstream to produce by-products. The untreated water provided to the treatment system of Richey et al. would not be potable without the treatment, and therefore may be considered as wastewater. Richey et al. teach that calcium thiosulfate has advantages as the ozone quenching chemical.

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4. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Wickramanayake (column 4, lines 47-52; column 9, lines 56-59). Wickramanayake teaches a method for treatment of soils contaminated with organic pollutants. In this method of Wickramanayake, the work material is a gas mixture that has passed through soil; the target constituent is ozone; the treating agent is sodium thiosulfate; and the objective is to quench the ozone.

5. Claims 1, 2 and 6 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Hagen et al. (abstract; column 18, lines 47-61). In this method of Hagen et al., the work material is a fluid; the target constituent is an oxidant such as ozone; the treating agent is oxidant scavenger particulates which may be sodium thiosulfate particulates; and the objective is to remove the oxidant.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Richey et al. Richey et al. disclose the method described above. The claim differs from Richey et al. by reciting a specific rate of calcium thiosulfate application to the water. It is submitted that one of ordinary skill in the art, when practicing the method of Richey et al., would have been expected to arrive at the optimum rate of calcium thiosulfate application by routine experimentation. In fact, Richey et

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al. disclose that the ozone quenching agent dose is a function of the ozone concentration in the water, and should be adjusted to reduce the dissolved ozone concentration without adding so much of the agent that the unoxidized agent would react with chlorine added downstream.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the present invention was made, to have applied calcium thiosulfate to the water in the amount recited in instant claim 11, depending on the concentration of dissolved ozone in the water being treated, absent a sufficient showing of unexpected results.

8. The declaration under 37 CFR 1.132 filed February 11, 2002 is insufficient to overcome the rejection of claims 1-4, 6-11 and 13-15 based upon Richey et al. as set forth in the last Office action because: no evidence was submitted to support the allegation that the subject patent application was filed earlier than one year after any action took place relative to the subject invention. This allegation is contradictory to evidence in the Richey et al. article which discloses the use of calcium thiosulfate as an ozone-quenching agent began in February 1999 in an ozone quenching system that was in place and in use beginning in August of 1995. The fact that the action disclosed in the Richey et al. article was a "test operation" is a moot point, since testing the operation included using calcium thiosulfate to quench ozone in the operation.

9. Applicant argues that Richey et al. is not prior art under 35 U.S.C. 102 because the paper was presented on October 3, 2000. However, the Richey et al. paper states that calcium thiosulfate was used as an ozone-quenching agent at a water treatment plant in February of 1999. Therefore, this argument does not overcome the rejections over Richey et al. in the previous Office Actions.

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10. Applicant argues that Wickramanayake et al. only disclose a method for treating soil through which a gas-ozone mixture is passed, and that the present invention is entirely different. However, Wickramanayake et al. also disclose quenching ozone from gas using sodium thiosulfate in column 4, lines 46-53, which anticipates the method of instant claims 1, 2 and 6.

11. Applicant argues that Hagen et al. do not disclose nor suggest the applicant's invention. However, the applicant does not point out how the invention of Hagen et al. differs from claims 1, 2 and 6.

12. Applicant alleges that in the personal interview held on August 14, 2001, "the Examiner helpfully noted that the Richey et al. reference was not prior art". This allegation is false. As indicated in the Interview Summary, paper no. 7, it was agreed that a declaration would possibly be submitted. Applicant's attorney had suggested that a declaration would establish that the Richey et al. article was not prior art. However, the declaration as prepared is insufficient for the reasons stated in paragraph 9 above. It is further pointed out that during the interview, it was agreed that further amendments to the claims would be made, as stated in the Interview Summary, which Applicant has failed to do.

13. Applicant argues that Wickramanayake's method differs from the present invention because in the present invention the work material is fluid, or water, the target constituent is ozone, and the treating substance is calcium thiosulfate. However, applicant is reminded that a "fluid" is a gas or liquid. Wickramanayake's method has a gaseous work material, ozone as the target constituent, and calcium thiosulfate treating substance.

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14. Applicant argues that in more narrow claims, the present invention is entirely dissimilar from Wickramanayake. Examiner fails to see the point in this statement, since Applicant did not make any attempt to incorporate the limitations of these more narrow claims into the claims that were rejected over Wickramanayake.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsey Hoey whose telephone number is (703) 305-3934. The examiner can normally be reached on Monday through Thursday from 8:30 AM to 6:00 PM, and on alternate Fridays from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. David Simmons, can be reached at (703) 308-1972. The fax phone number for official after final faxes for this Group is (703)305-3599, for all other official faxes the number is (703)305-7718, and for unofficial faxes the number is (703) 305-3602.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0651.

Betsey M. Hoey
BETSEY MORRISON HOEY
PRIMARY EXAMINER
3-1-2002